

Easidew Sampler

Self-Contained Sampling System



A low-cost, self-contained sampling system, with filtration and flow control, for measurement of either pressure or atmospheric dew points.



Highlights

- Universal configuration for atmospheric or line pressure dew point measurements
- Integral particulate filter
- Metering valve for flow control
- Single block design for faster measurement response
- Gas pressure to 145 psig (high pressure option to 3000 psig available)

Applications

- Compressed air dryers
- Plastic molding
- Ozone generators
- Medical gases
- Pneumatics
- Breathing air
- Welding gases
- ... and many more

Easidew Sampler Self-Contained Sampling System

Background

The Easidew Sampler is a general purpose sampling system that allows easy measurement of the dew point in many compressed air and industrial gas applications.

The Easidew Sampler provides all the necessary components to allow a sample of gas under test to be conditioned for measurement either at atmospheric or full line pressure; the two most commonly demanded sampling conditions. Easidew Sampler provides flow and pressure regulation as well as an in-line particulate filter and the sensor housing, all in a single integrated block assembly. The system is provided with a multi-directional mounting bracket for easy mounting on a panel, post, or pipe brace.

Fast Response and High Integrity

Easidew Sampler is manufactured from a single, machined stainless steel block. This reduces the number of pipe joints required to get a sample under test to the sensor and also reduces internal volume and surface area. As a result, the sampling system has a faster response and higher integrity than similar systems built from discrete components. The integrated particulate filter provides further protection against solid contamination.

System Description

Easidew Sampler consists of following key components:

- Connection Ports
- Filter
- Flow Control Valve

Connection Ports

The inlet and outlet tubing connections are available with either quick connect, push fit type for 6mm O/D plastic (PTFE, FEP) tubing or Swagelok tube fittings for 1/4" O/D plastic tubing. A 0.5m (19.6") length of PTFE is supplied which should be used as a pig-tail from the outlet port, whether measuring in either the atmospheric or pressure mode.

Filter

A 99.5% 0.3 micron particulate filter cartridge is installed downstream of the gas inlet port, accessible via a filter cap with O-ring seal. Other filter cartridge ratings can be supplied to customer order.

Flow Control Valve

A flow control valve is factory installed to the outlet port. This valve is designed to set the optimum gas flow of 1 to 5 l/min (2 to 10 scfh) through the sensor sampling block.

Pressure Dew Point Measurements

The Easidew Sampler is factory assembled to make dew point measurements at full line pressure. This is achieved by controlling the gas flow at the outlet port.

The maximum operating pressure for the Easidew Sampler is 145 psig (high pressure option to 3000 psig is available).

If desired, the block can be easily reconfigured to make atmospheric dew point measurements by transferring the flow control valve to the inlet port. Simply swap positions of the flow control valve and the gas pipe connection coupling installed at the inlet port. In this configuration, the flow valve regulates the gas pressure down to atmospheric before it reaches the sensor.

Mounting

The mounting of the Easidew Sampler is very flexible using the factory installed mounting bracket. This bracket is easily removed and repositioned to provide a combination of mounting profiles. Alternatively the user may wish to directly mount the Easidew Sampler without the use of the bracket; for this purpose two threaded mounting holes are machined directly into the block.



Features

- Easidew Transmitter installed in sampler
- Sample filtration
- Mounting brackets
- Flow control
- Gas pressure to 145 psig (high pressure option to 3000 psig available)
- Integrated design for faster response

Ordering Codes

EA2-SAM	6mm quick connect fittings
EA2-SAM-25	1/4" Swagelok tube fittings

Options and Accessories

Sampling Tube	6mm and 1/4" O/D thick wall PTFE sampling tube is available to customer specific length
Spare Filter Cartridges	Available in packs of ten cartridges, 99.95 % retention at 0.3 micron
High Pressure Version	High pressure configuration with 0.25" O/D compression fittings and high pressure rated valve is available
Flow Meter	Scaled from 1 to 5 l/min (2 to 10 scfh) at one atmosphere can be installed at system outlet

Technical Specifications

Gas Flow Rate	1 to 5 l/min (2 to 10 scfh)
Operating Pressure	145 psig (high pressure option to 3000 psig)
Particulate Filter	99.5 % removal of 0.3 microns
Gas Connections	Quick Connect fittings for 6mm O/D plastic tubing or 1/4" Swagelok tube fittings (PTFE or FEP recommended)
Sample Tube	Supplied with 0.5m (19.6") pig-tail vent tube, to prevent back-diffusion
Vacuum Rating	Standard push fittings are not vacuum rated
Materials of Constructions	
Block and Cap:	316 stainless steel
Flow Control Block:	Aluminium
Couplings:	Nickel plated brass
Sensor Port	5/8" UNF to support all Michell Instruments' impedance sensors/transmitters
Environmental	IP66 (NEMA 4)
Operating Temperature	-40 to +60°C (-40 to +140°F) (or as determined by sensor specification)
Storage Temperature	-40 to +70°C, 0-95 %RH non-condensing (-40 to +158°F)
Weight	1.1Kg (2.4lbs) or 1.3Kg when sensor installed (2.9lbs)

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